

FIG. 1

SYS MOBILE IP NETWORK SYSTEM

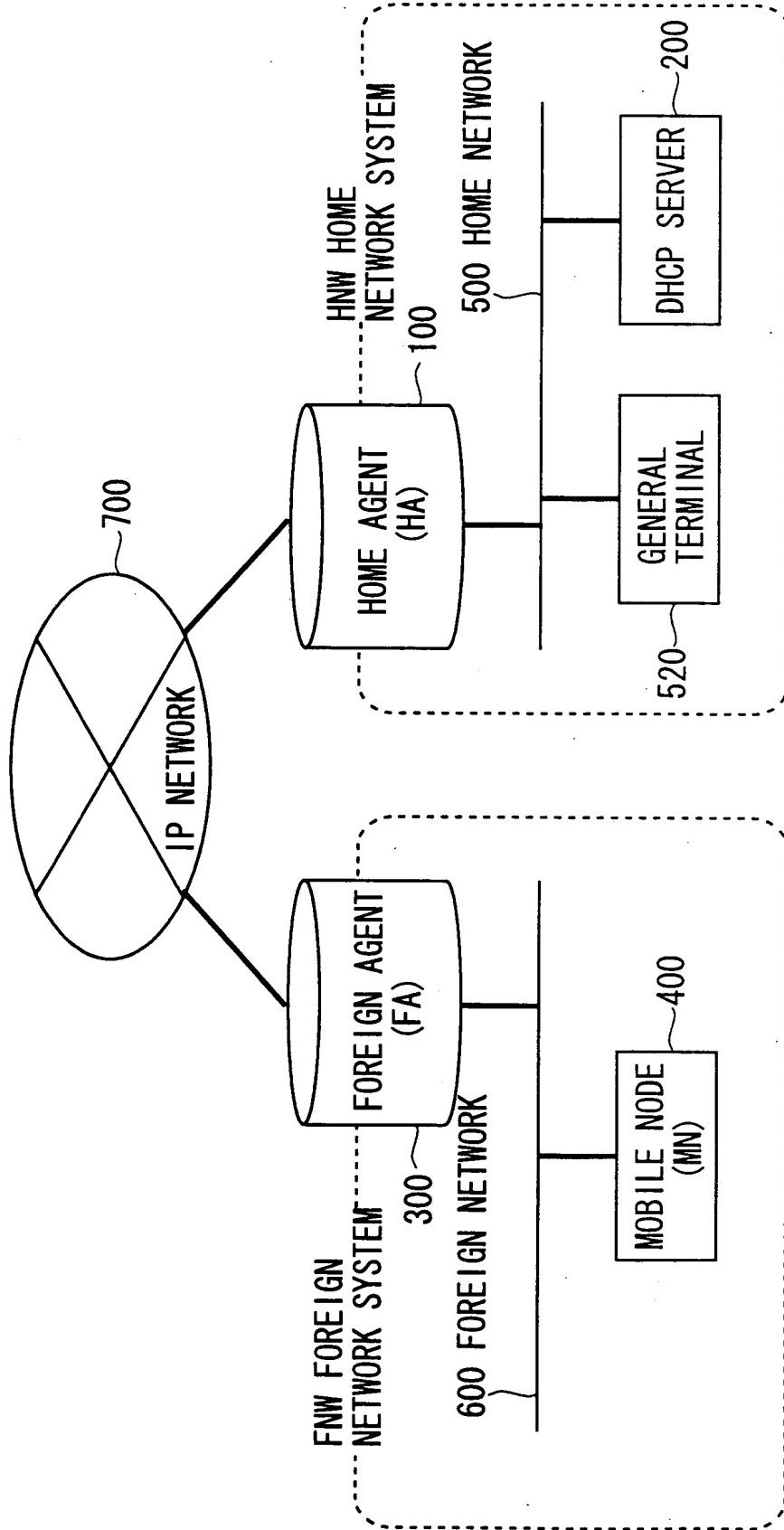


FIG. 2

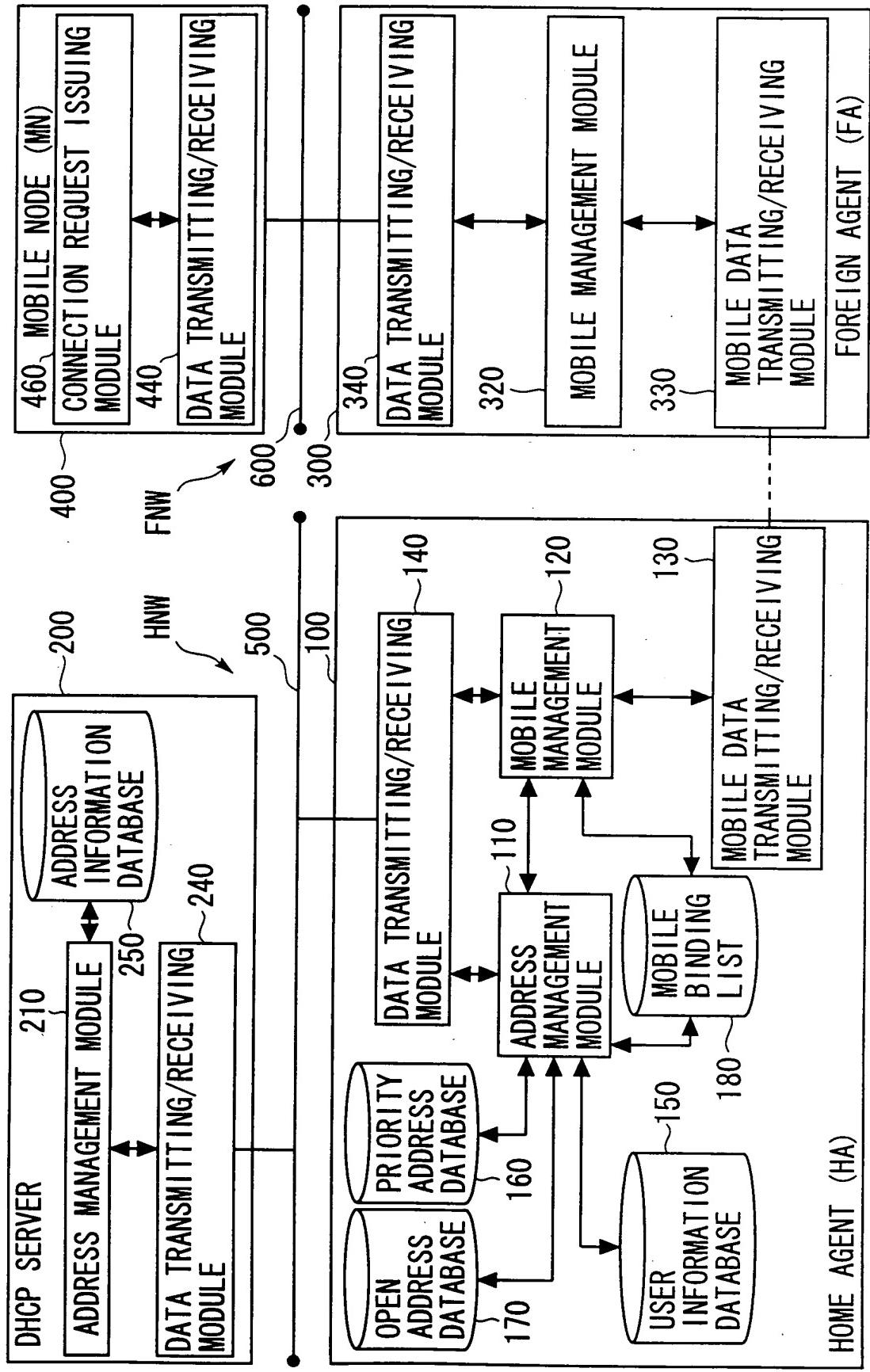


FIG. 3A

USER IDENTIFIER(MN-NAD)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 3B

FIG. 3C

FIG. 3D

\* \* \* ASSUMING THAT 15 USERS (PRIORITY-A USERS) ARE REGISTERED, 5 FIVE PRIORITY-A USERS BEFOREHAND FOR 3 PRIORITY-A USERS

FIG. 4A

USER IDENTIFIER(MN-NAD)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 4B

FIG. 4C

FIG. 4D

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\*1:USER aaa S GIVEN F  
ADDRESS DATA BASE  
\*2:STA TUS THA  
aaa

FIG. 5A

USER IDENTIFIER(MN-NAD)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 5B

FIG. 5C

FIG. 5D

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- \*1: USER bbbb IS GIVEN PRIORITY B AND THEREFORE OBTAINS IP ADDRESS FROM DHCP SERVER
- \*2: STATUS THAT USERS aaa AND bbbb ARE ACTIVE IS ADMINISTERED

FIG. 6A

USER IDENTIFIER(MIN-NAD)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 6B

FIG. 6C

FIG. 6D

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ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY
aaa1	aaa.aaa.aaa.aaa	PRIORITY A

BFILE BINDING [ST]  
S MANAGED WITHIN TIME t IN OPEN ADDRESS DATABASE

FIG. 7A

USER IDENTIFIER(MN-NAY) USER PRIORITY
aaa1
aaa2
aaa3
aaa4
aaa5
bbb1
bbb2
bbb3
bbb4
bbb5
bbb6
bbb7
bbb8
bbb9
bbb10

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FIG. 7B

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAY)	ACTIVE USER PRIORITY
aaa. aaa. aaa. aa1	aaa1	PRIORITY A
aaa. aaa. aaa. aa2	aa2	
aaa. aaa. aaa. aa3	aa3	
aaa. aaa. aaa. aa4	aa4	
aaa. aaa. aaa. aa5	aa5	
bbb. bbb. bbb. bb1	bb1	PRIORITY B
bbb. bbb. bbb. bb2	bb2	PRIORITY B
bbb. bbb. bbb. bb3	bb3	PRIORITY B
bbb. bbb. bbb. bb4	bb4	PRIORITY B
bbb. bbb. bbb. bb5	bb5	PRIORITY B
bbb. bbb. bbb. bb6	bb6	PRIORITY B
bbb. bbb. bbb. bb7	bb7	PRIORITY B
bbb. bbb. bbb. bb8	bb8	PRIORITY B
bbb. bbb. bbb. bb9	bb9	PRIORITY B
bbb. bbb. bbb. bb10	bb10	PRIORITY B

FIG. 7C

ADDRESS	OPEN TIME	FORCED DELETE RANK
aaa1		
bbb2		
bbb3		
bbb4		
bbb5		
bbb6		
bbb7		
bbb8		
bbb9		
bbb10		

FIG. 7D

ACTIVE USER IDENTIFIER(MN-NAY)	ACTIVE ADDRESS	ACTIVE USER PRIORITY
aaa1	aaa. aaa. aaa1	PRIORITY A
bbb2	bbb. bbb. bb1	PRIORITY B
bbb3		
bbb4		
bbb5		
bbb6		
bbb7		
bbb8		
bbb9		
bbb10		

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- \*1: STATUS THAT aaa1 AND bbb2 ARE ACTIVE IS ADMINISTERED
- \*2: ADDRESS USED BY bbb1 IS REUSED BY bbb2 FROM DHCP SERVER BUT FROM OPEN ADDRESS DATABASE

bbb1 IS OBTAINED NOT

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FIG. 8A

USER IDENTIFIER(MN-NAD)	USER	PRIORITY
aaa1	PRIOR1	A
aaa2	PRIOR2	A
aaa3	PRIOR3	A
aaa4	PRIOR4	A
aaa5	PRIOR5	A
bbb1	PRIOR6	B
bbb2	PRIOR7	B
bbb3	PRIOR8	B
bbb4	PRIOR9	B
bbb5	PRIOR10	B
bbb6	PRIOR11	B
bbb7	PRIORITY1	B
bbb8	PRIORITY2	B
bbb9	PRIORITY3	B
bbb10	PRIORITY4	B

FIG. 8B

FIG. 8C

FIG. 8D

\*1:ADDRESS bbb.bbb.bbb.bbb IS MADE OPEN

*FIG. 9A*

USER IDENTIFIER(MN-NA)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

*FIG. 9B*

ADDRESS	ACTIVE USER IDENTIFIER(MN-NA)	ACTIVE USER PRIORITY
aaa. aaa. aaa. aaa. aa1	aaa1	PRIORITY A
aaa. aaa. aaa. aaa. aa2	aaa2	PRIORITY A
aaa. aaa. aaa. aaa. aa3	aaa3	PRIORITY A
aaa. aaa. aaa. aaa. aa4	aaa4	PRIORITY A
bbb. bbb. bbb. bbb. bb1		
bbb. bbb. bbb. bbb. bb2		
bbb. bbb. bbb. bbb. bb3		
bbb. bbb. bbb. bbb. bb4		
bbb. bbb. bbb. bbb. bb5		
bbb. bbb. bbb. bbb. bb6		
bbb. bbb. bbb. bbb. bb7		
bbb. bbb. bbb. bbb. bb8		
bbb. bbb. bbb. bbb. bb9		
bbb. bbb. bbb. bbb. bb10		

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*FIG. 9C*

ADDRESS	OPEN TIME FORCED DELETE RANK
aaa1	
aaa5	
aaa4	
aaa2	
aaa3	
bbb1	
bbb2	
bbb3	
bbb4	
bbb5	
bbb6	
bbb7	
bbb8	
bbb9	
bbb10	

*FIG. 9D*

ADDRESS	ACTIVE USER IDENTIFIER(MN-NA)	ACTIVE ADDRESS	ACTIVE USER PRIORITY
aaa1		aaa. aaa. aaa. aa1	PRIORITY A
aaa5		aaa. aaa. aaa. aa2	PRIORITY A
aaa4		aaa. aaa. aaa. aa3	PRIORITY A
aaa2		bbb. bbb. bbb. bb1	PRIORITY A
aaa3		bbb. bbb. bbb. bb2	PRIORITY A
bbb1			
bbb2			
bbb3			
bbb4			
bbb5			
bbb6			
bbb7			
bbb8			
bbb9			
bbb10			

\*1: USER USING PRIORITY ADDRESS IS ADMINISTERED  
 \*2: ADDRESSES THAT USERS aaa1 - aaa5 ARE IP ADDRESSES OBTAINED FROM DHCP SERVER  
 \*3: STATUS IS ADMINISTERED

FIG. 10A

USER IDENTIFIER(MN-NAD)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 10B

FIG. 10C

ADDRESS	OPEN	TIME	FORCED	DELETE	RANK
bbb.bbb.bbb.bbb1	t				
bbb.bbb.bbb.bbb2	t				

FIG. 10D

—\*1:ACTIVE USER IS DELETED FROM MOBILE BINDING LIST  
—\*2:NO ACTIVE USER IN BOUNDARY ADDRESS BASE  
—\*3:ADDRESS OBTAINED FROM DHCP SERVER IS MANAGED WITHIN TIME t IN OPEN ADDRESS DATABASE

*FIG. 11A*

USER IDENTIFIER(MN-NA)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

*FIG. 11B*

ADDRESS	ACTIVE USER IDENTIFIER(MN-NA)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aaa.aaa.3	aaa.aaa.aaa.aaa.aaa.3	PRIORITY A
aaa.aaa.aaa.aaa.aaa.2	aaa.aaa.aaa.aaa.aaa.2	PRIORITY B
aaa.aaa.aaa.aaa.aaa.2	aaa.aaa.aaa.aaa.aaa.2	PRIORITY B
bbb1		
bbb2		
bbb3		
bbb4		
bbb5		
bbb6		
bbb7		
bbb8		
bbb9		
bbb10		

*FIG. 11C*

ADDRESS	OPEN TIME FORCED DELETE RANK
aaa3	
bbb1	
bbb2	
bbb3	
bbb4	
bbb5	
bbb6	
bbb7	
bbb8	
bbb9	
bbb10	

*FIG. 11D*

ADDRESS	ACTIVE USER IDENTIFIER(MN-NA)	ACTIVE ADDRESS	ACTIVE USER PRIORITY
aaa.aaa.aaa.aaa.aaa.3	aaa.aaa.aaa.aaa.aaa.3	bbb1	PRIORITY A
bbb1		bbb1	PRIORITY B
bbb2		bbb2	PRIORITY B
bbb3		bbb3	PRIORITY B
bbb4		bbb4	PRIORITY B
bbb5		bbb5	PRIORITY B
bbb6		bbb6	PRIORITY B
bbb7		bbb7	PRIORITY B
bbb8		bbb8	PRIORITY B
bbb9		bbb9	PRIORITY B
bbb10		bbb10	PRIORITY B

\*1: IT IS INDICATED THAT USER bbb10 USES PRIORITY-A USER IP ADDRESS  
 \*2: IT IS INDICATED THAT USER bbb10 USES PRIORITY-A USER IP ADDRESS

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*FIG. 12A*

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

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*FIG. 12B*

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ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2	aaa2	PRIORITY A
aaa.aaa.aaa.aa3	aaa3	PRIORITY A

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FIG. 12C

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FIG. 12D

ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY
aaa1	aaa. aaa. aaa. aa1	PRIORITY A
aaa2	aaa. aaa. aaa. aa2	PRIORITY A
aaa3	aaa. aaa. aaa. aa3	PRIORITY A
bbb1	bbb. bbb. bbb. bb1	PRIORITY B
bbb2	bbb. bbb. bbb. bb2	PRIORITY B
bbb3	bbb. bbb. bbb. bb3	PRIORITY B
bbb4	bbb. bbb. bbb. bb4	PRIORITY B
bbb5	bbb. bbb. bbb. bb5	PRIORITY B
bbb6	bbb. bbb. bbb. bb6	PRIORITY B
bbb7	bbb. bbb. bbb. bb7	PRIORITY B
CCC1	ccc. ccc. ccc. cc1	PRIORITY C
CCC2	ccc. ccc. ccc. cc2	PRIORITY C
CCC3	ccc. ccc. ccc. cc3	PRIORITY C
CCC4	ccc. ccc. ccc. cc4	PRIORITY C

*FIG. 13A*

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

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*FIG. 13B*

ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2	aaa2	PRIORITY A
aaa.aaa.aaa.aa3	aaa3	PRIORITY A

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FIG. 13C

FIG. 13D

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ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa. aaa. aaa. aa1	PRIORITY A	
aaa2	aaa. aaa. aaa. aa2	PRIORITY A	
aaa3	aaa. aaa. aaa. aa3	PRIORITY A	
bbb1	bbb. bbb. bbb. bb1	PRIORITY B	
bbb2	bbb. bbb. bbb. bb2	PRIORITY B	
bbb3	bbb. bbb. bbb. bb3	PRIORITY B	
bbb4	bbb. bbb. bbb. bb4	PRIORITY B	
bbb5	bbb. bbb. bbb. bb5	PRIORITY B	
bbb6	bbb. bbb. bbb. bb6	PRIORITY B	
bbb7	bbb. bbb. bbb. bb7	PRIORITY B	
aaa4	ccc. ccc. ccc. cc1	PRIORITY A	

\*1: PRIORITY-C USER IS FORCIBLY DELETED

\*2: ONE OF IP ADDRESSES USED BY PRIORITY-C USERS IS ALLOCATED

*FIG. 14A*

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

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*FIG. 14B*

ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2	aaa2	PRIORITY A
aaa.aaa.aaa.aa3	aaa3	PRIORITY A

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FIG. 14C

\*1 : PREFERENTIAL ALLOCATION MODE TO PRIORITY-A  
USER IS SWITCHED OVER TO GENERAL ALLOCATION  
MODE BY CLEARING FORCED DELETE RANK AFTER  
ELAPSE OF PROTECTION TIME  $z$  OF FORCIBLY  
DELETED IP ADDRESS AND REWRITING STORAGE  
CONTENT WITHIN OPEN TIME  $t$ , AND OBTAINED IP  
ADDRESS IS RETURNED TO DHCP SERVER AFTER  
ELAPSE OF OPEN TIME  $t$ . IF REGISTRATION REQUESTS  
ARE GIVEN FROM PRIORITY-A, -B AND -C USERS,  
IP ADDRESSES STORED IN OPEN ADDRESS DATABASE  
ARE ALLOCATED

FIG. 14D

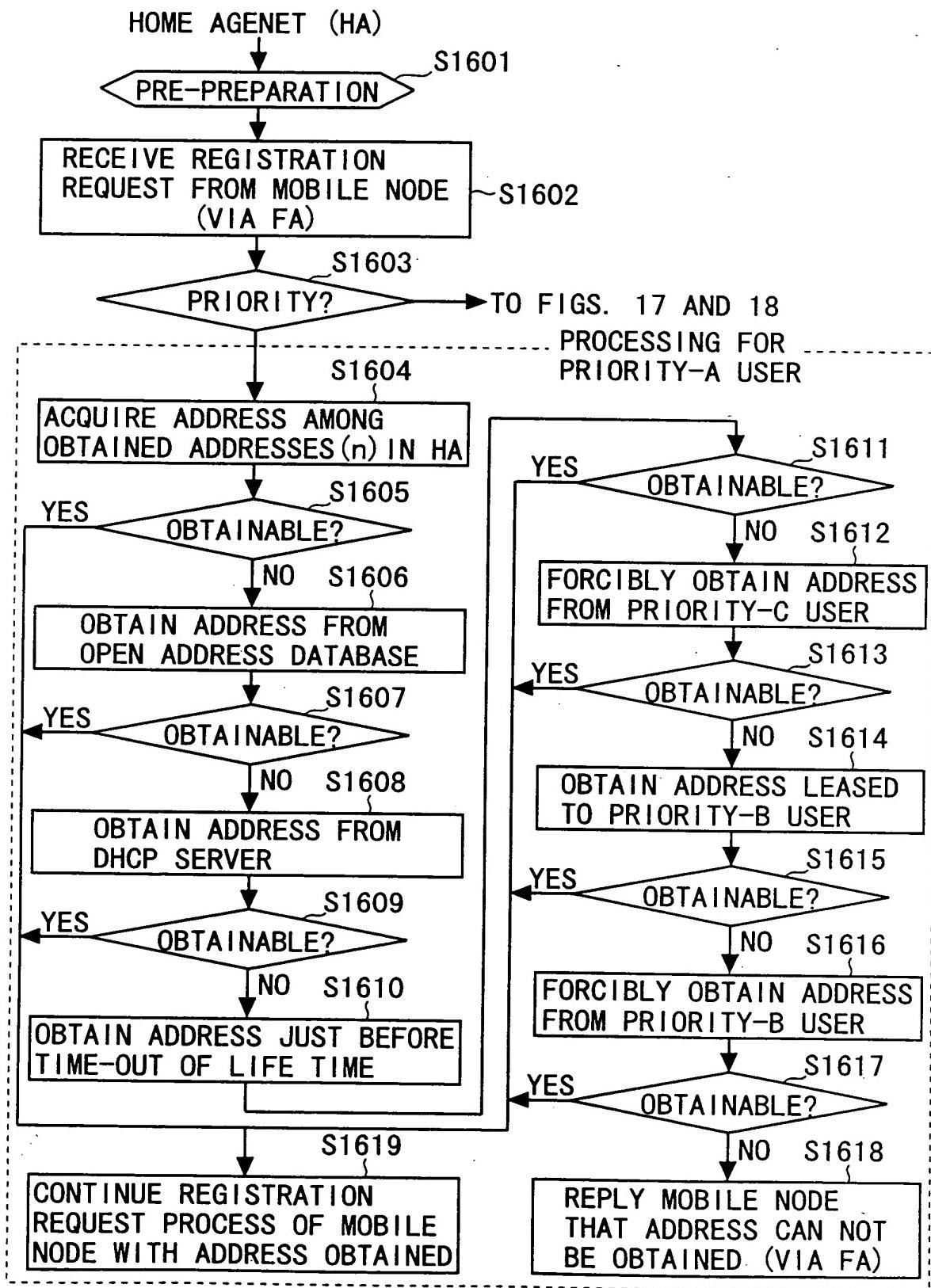
ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY
aaa1	aaa. aaa. aaa. aa1	PRIORITY A
aaa2	aaa. aaa. aaa. aa2	PRIORITY A
aaa3	aaa. aaa. aaa. aa3	PRIORITY A
bbb1	bbb. bbb. bbb. bb1	PRIORITY B
bbb2	bbb. bbb. bbb. bb2	PRIORITY B
bbb3	bbb. bbb. bbb. bb3	PRIORITY B
bbb4	bbb. bbb. bbb. bb4	PRIORITY B
bbb5	bbb. bbb. bbb. bb5	PRIORITY B
bbb6	bbb. bbb. bbb. bb6	PRIORITY B
bbb7	bbb. bbb. bbb. bb7	PRIORITY B
aaa4	ccc. ccc. ccc. cc1	PRIORITY A

FIG. 15

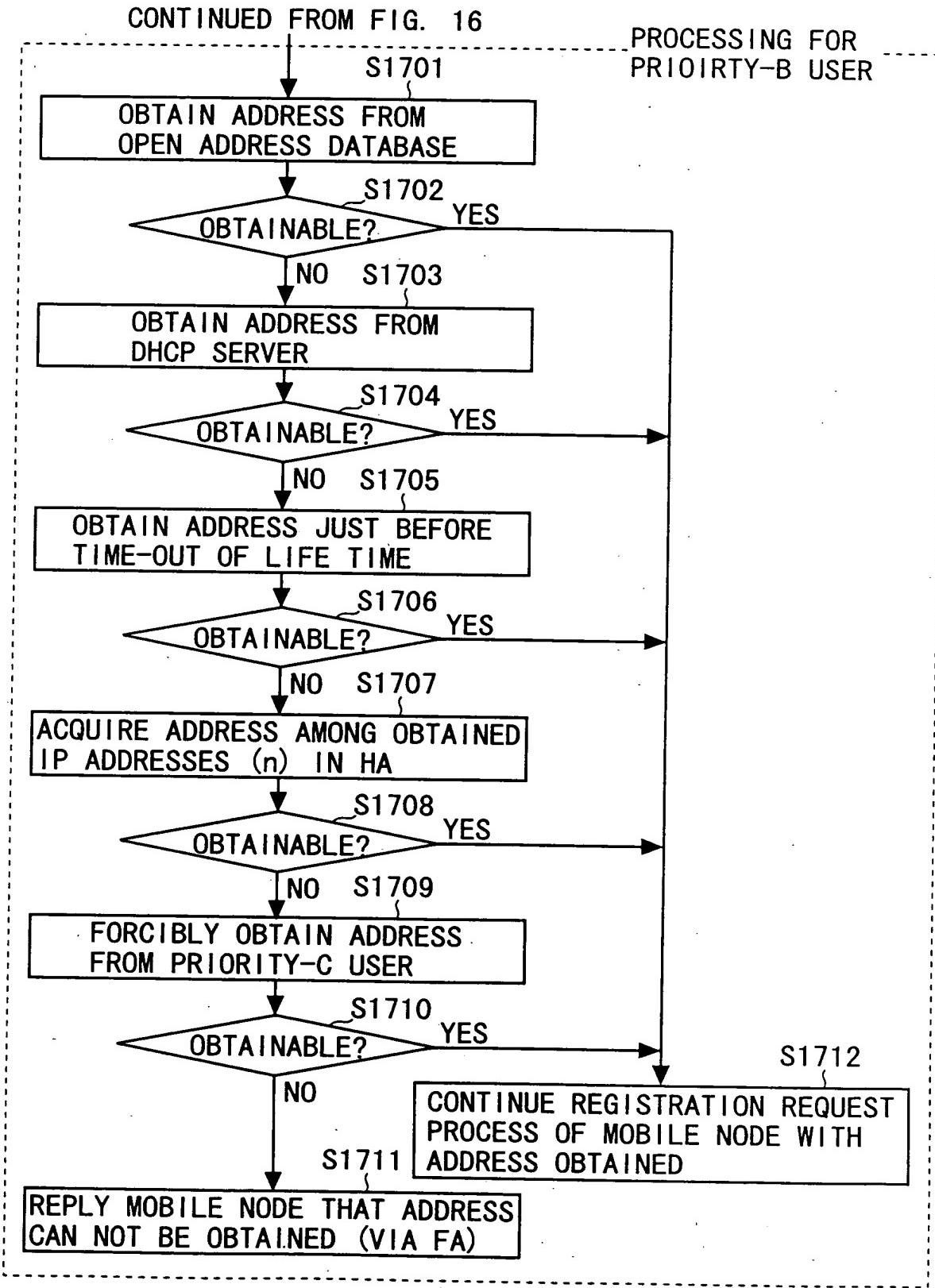
250 ADDRESS INFORMATION DATABASE

LEASE IP ADDRESS	CLIENT IDENTIFIER	LEASE TIME
nnn. nnn. nnn. nn1	abc1	l
nnn. nnn. nnn. nn2	abc2	m
nnn. nnn. nnn. nn3	abc3	n
nnn. nnn. nnn. nn4		→UNUSED (FREE)
•	•	•
nnn. nnn. nnn. mmm		→UNUSED (FREE)

*FIG. 16*

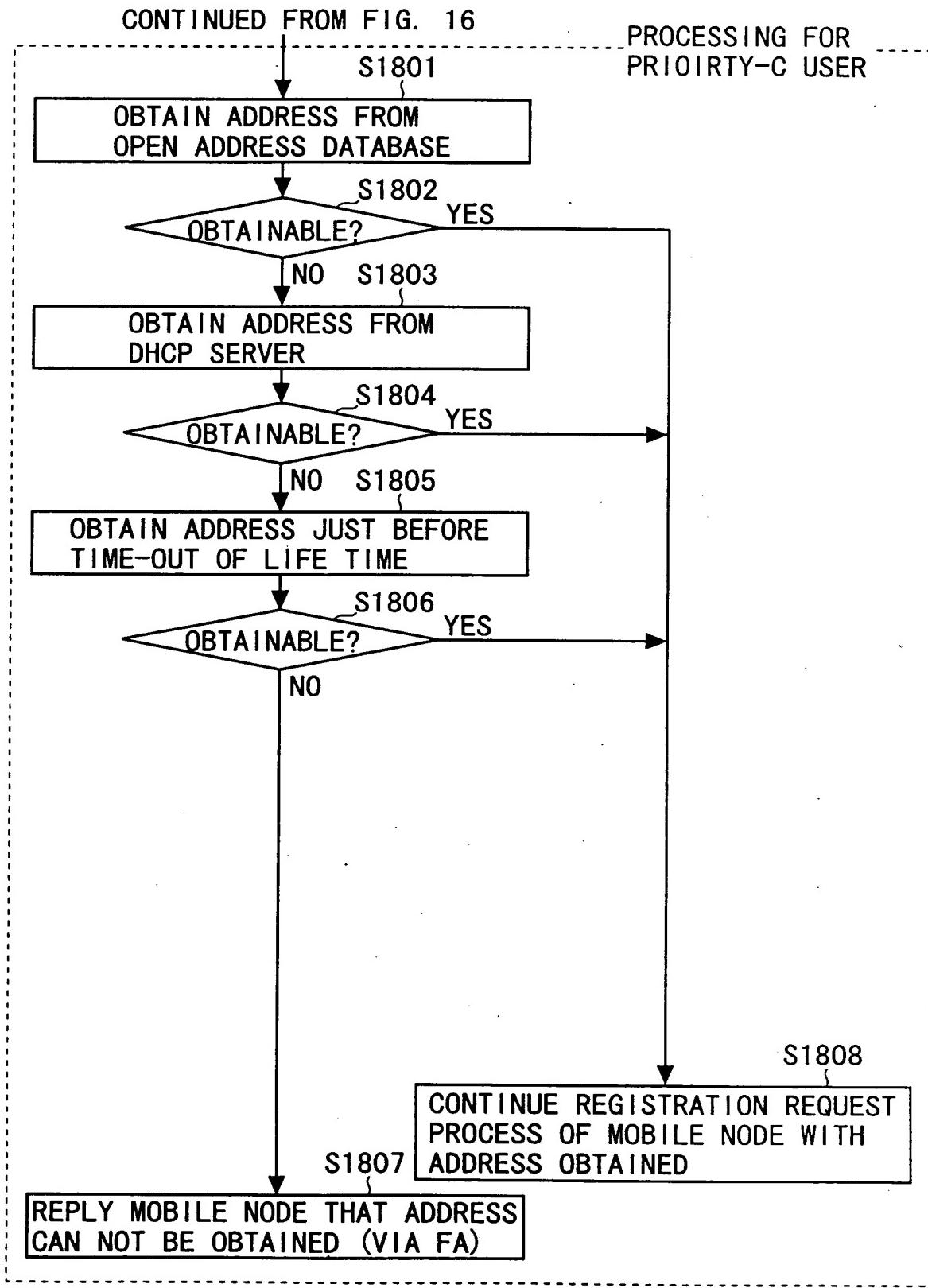


*FIG. 17*



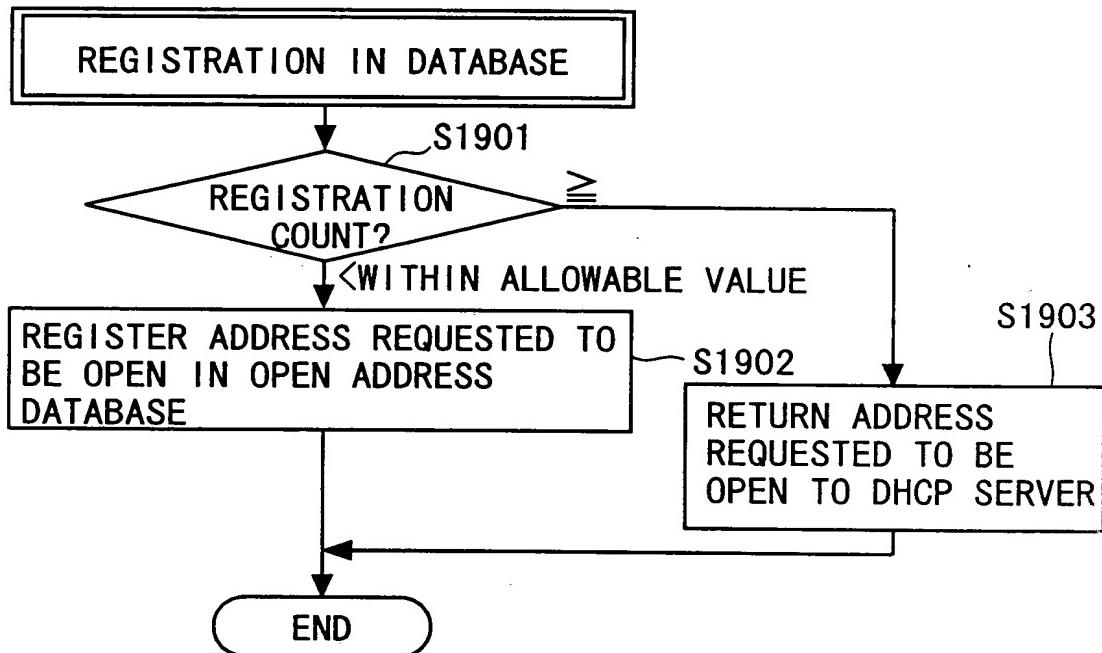
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*FIG. 18*

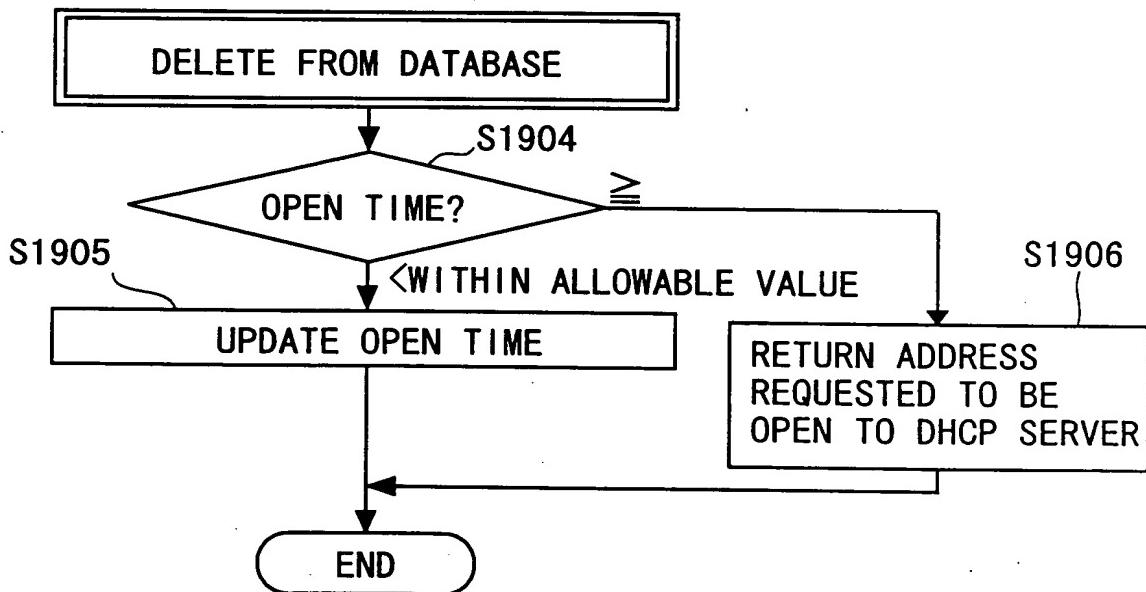


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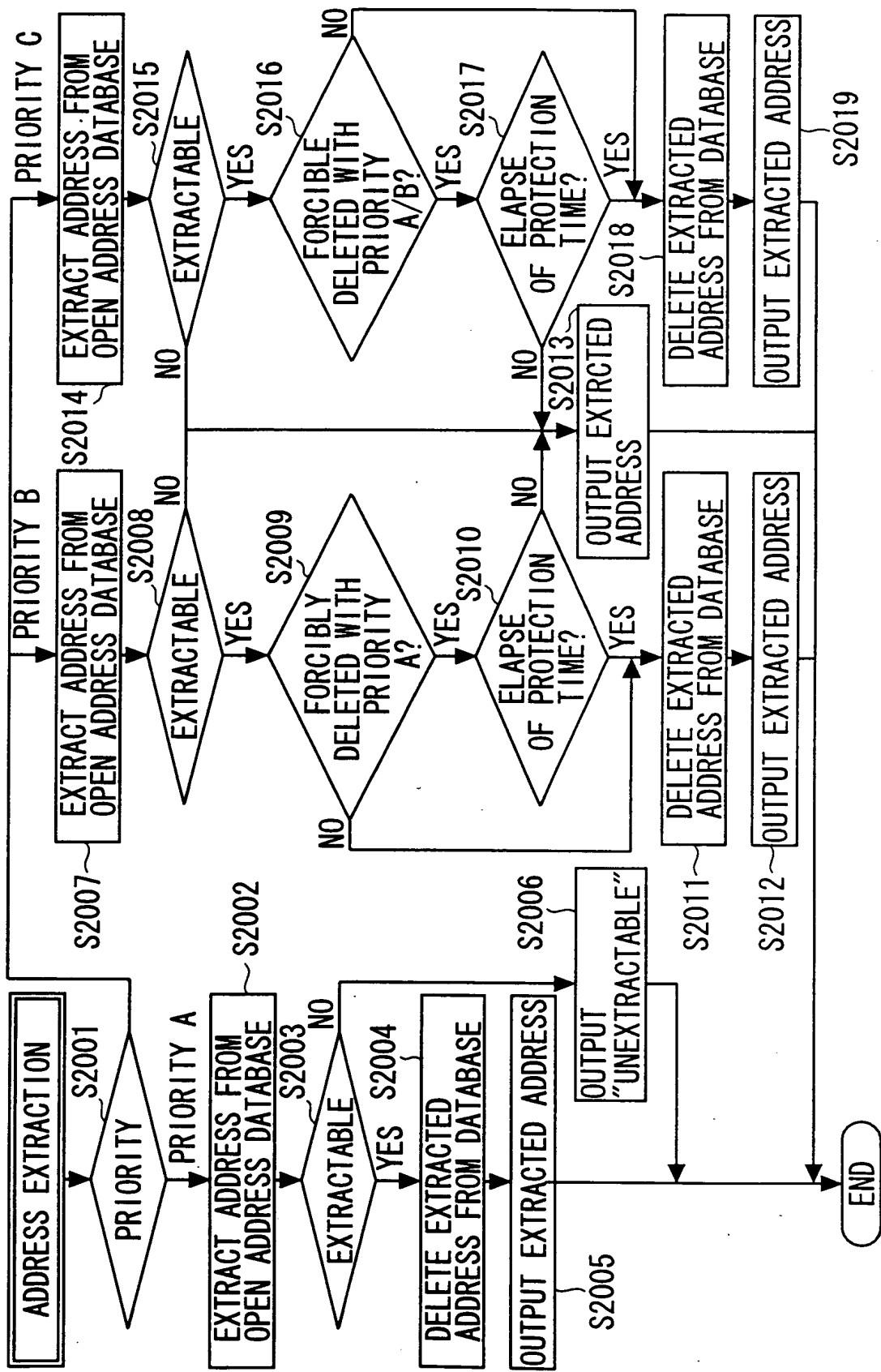
*FIG. 19A*



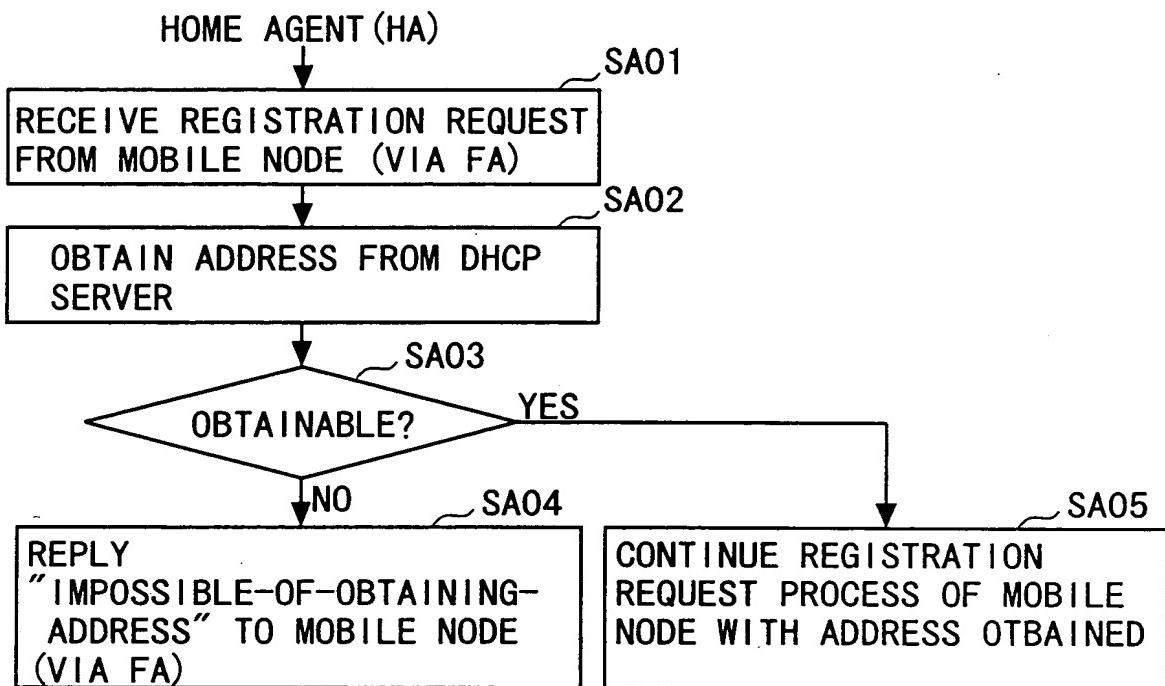
*FIG. 19B*



*FIG. 20*



*FIG. 21A*



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*FIG. 21B*

